

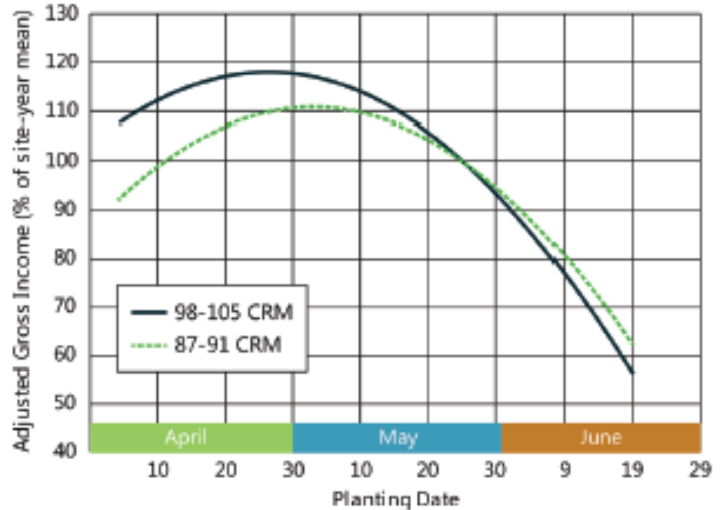


Nick Schimek
Pioneer Field Agronomist

Field Update – Planters at the Ready, Timeline

Welcome to the first week of May! Central MN received anywhere from ½ - 2 ½ inches of moisture over the weekend which brought everything to a standstill. However, favorable temperatures are projected through the 10-day forecast and once soils are fit, I expect corn and soybean planting to be a full go!

Even though the calendar has flipped to May, remember to not get cold feet on changing maturities. Research indicates that full-season corn maturity should be maintained through May 20th-30th and June 5th – 10th for soybeans in order to maximize profitability. Adapted corn and soybean plants are able to compensate for delayed planting by shortening time to maturity as well. Once planting is underway, ensure the seed is going in the ground correctly to give yourself the best potential from day 1! Read below for further details on targeted planting depth.



Profitability of full-season vs. early maturity hybrids by planting date. Results from Pioneer planting date studies over 18 years in central MN and northern WI on corn products ranging from 87 to 105 CRM.

Hitting the Correct Planting Depth

Last year was proof that planting depth is extremely important to ensure adequate emergence, especially in dry conditions. I know we aren't necessarily dry this spring, but the importance of hitting the correct planting depth remains true. The push back this spring may be to plant shallow to encourage faster emergence. Let me try to argue against why we should avoid this and stay to the plan.

- First and foremost, **planting into moisture**. This is a commonly stated fact, but to take it one step farther is to ensure the seed is **firmly wrapped in moist soil** as well. Residue, dry soil, or air pockets can cause inconsistent imbibition, which leads to uneven emergence.
- Avoid fluctuations in air temperature that can occur at shallow planting depths.
- Ohio State Univ. and Pioneer research indicated that deeper planting (>1 inch) may take longer for initial corn plants to emerge, but will emerge more uniformly and take less time to reach 100% cumulative emergence than shallow planting.
- Corn nodal roots may form too close to the soil surface if planted too shallow (<1 inch) and lead to issues the remainder of the season.

What is my suggestion for planting depth? Target a depth of 2 inches for corn and just over 1 inch for soybeans. Remember that this is a starting point and will vary depending on soil type and planting conditions. In general, you can usually shy shallower in heavier soils and deeper in coarse textured soils. However, continue to monitor planting depth ACROSS the planter width when moving to fields with different soil textures or previous crops.



Corn seed firmly wrapped in moisture at the 1.75 inch depth.

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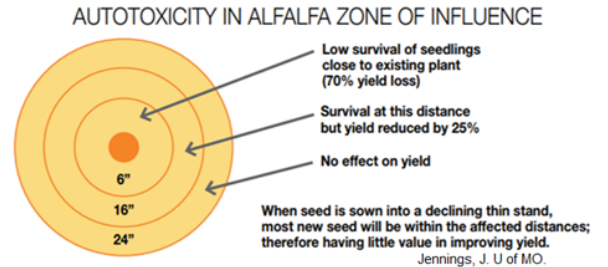
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Overseeding Alfalfa and Autotoxicity Considerations

Alfalfa growth has been minimal thus far so it is still early to determine the viability of alfalfa fields through the winter. However, initial inspections have been positive from the fields I have assessed this spring! There are always a few spots that have a thinner stand than desired and you may want to try and patch it with something to extend the life of the stand. This is especially true in new seedings that we hope to keep for several years. Can alfalfa be overseeded into these stands again?

The answer is yes, but with stipulations. Attempting to overseed alfalfa into an established stand that is over one year old will likely not be successful due to autotoxicity. The allelopathic effect is created by chemical compounds secreted by the original alfalfa stand, which prevents new plants from establishing. Therefore, alfalfa fields that were seeded last spring or fall would be ok to patch into, but 2+ year old seedings cannot. So what are options if plants fall below the 5 plants/ft² or 40 stems/ft² suggestion and we want to prolong the stand? The choice to overseed will depend on the overall goal and other factors such as length of extension needed and desired forage and quality.

- 1) Perennial or Annual Grasses- Oats, fescue, and ryegrass can increase tonnage in reduced stands.
- 2) Perennial Clovers- Red, berseem, and ladino clovers may not provide as much tonnage as grasses, but maintain quality.



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